Forest Health Protection
Pacific Southwest Region

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To: Patricia Grantham, Forest Supervisor, Klamath National Forest

Subject: Site visit to Lovers Camp/Canyon Creek Trailhead to assess forest health and tree hazard conditions and determine suitability for WBBI funding for a Vegetation Management Plan (FHP Report No. N14-01)

At the request of Travis Coughlin, Forester (Klamath NF), a site visit was made to Lovers Camp and Canyon Creek Trailhead on July 18, 2013. Travis Coughlin, Sam Commarto, Roger Siemers (Klamath NF), Pete Angwin and Cynthia Snyder (FHP) were present. The objectives were to assess forest health conditions, identify potential hazard trees, provide input regarding potential vegetation management actions, and provide training in the use of the new Regional Hazard Tree Guidelines (Angwin et.al. 2012). While at the site, we also discussed the possibility for potential funding of a vegetation management plan for Lovers Camp/Canyon Creek Trailhead and other campgrounds and trailheads in the area through the Forest Health Protection (FHP) Western Bark Beetle Initiative (WBBI).

Background

Lovers Camp is located 16 miles west of Fort Jones in the Canyon Creek Watershed (T43N, R11W, Sec. 8, Mt. Diablo Meridian; N41° 35.687', W123° 08.557'). Encompassing approximately 10 acres at an elevation of 4,300 feet, the Camp contains an 8-unit campground, a horse camp and the trailhead to the Canyon Creek trail, which provides major access into the Marble Mountain Wilderness Area. Although it is one of the busiest campsite/trailhead facilities on the Klamath National Forest, no major safety incidents have ever been reported.

Observations

The forest stand at Lovers Camp is dominated by an overmature, closed, multi-story canopy of white fir with a lesser mix of Douglas-fir, incense cedar and mature sugar pine. Tree size is 24" DBH and up; density is 60% and up; and the QMD range is 20-29". Although white fir dwarf mistletoe (*Arceuthobium abeitinum* f. sp. *concoloris*) is present at mostly low dwarf mistletoe rating (DMR) levels in the white fir, several have large bole cankers from the pathogen. Symptoms or signs of root disease were not noted in any species.

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The site visit provided an opportunity to practice using the new Regional Hazard Tree Guidelines to identify potentially hazardous trees. While most trees in the campground

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and trailhead rated low for hazard, several moderate and high-hazard trees were identified with the following defects:

- White fir with large fresh crack or cracks (Figure 1)
- White fir with dwarf mistletoe bole cankers over 1/3rd of the circumference (Figure 2)
- Incense cedar with large cracks, basal bole decay and bird nesting holes (Figures 3a and b)
- Incense cedar with large dead branches
- White fir with Indian paint fungus (*Echinodontium tinctorium*) fruiting body (Figure 4)
- Dead white fir

Figure 1. White fir with large fresh cracks

Figure 2. White fir with large dwarf mistletoe bole canker and associated cracks

Figures 3a and b. Incense cedar with large cracks, basal bole decay and bird nesting holes

Figure 4. White fir with Indian paint fungus (*Echinodontium tinctorium)* fruiting body

In all, nine white firs and one incense cedar were recommended for removal (of the tree or the target), and pruning of dead branches was recommended for two incense cedars. A more detailed, systematic inspection of the campground and trailhead would likely identify additional trees that would require mitigation (removal or pruning) or monitoring.

As was stated above, symptoms or signs of root disease were not found in the campground. Several white fir stumps were found near the far end of the upper parking lot that had fungal fruiting bodies inside them. However, close inspection showed that they were the red belt fungus (*Fomitopsis pinicola*), a common decay fungus of dead wood (Figure 6), and not *Heterobasidion occidentale*, which causes Heterobasidion root disease of true firs, western hemlock and giant sequoia.

Figure 5. Red belt fungus (*Fomitopsis pinicola*) fruiting body in white fir stump

While dwarf mistletoe is present in white fir at mostly low levels, most infections by themselves do not generally cause defects that lead to branch or tree failure. A notable exception to this is when the dwarf mistletoe has infected the main stem of the tree, causing a bole canker. These cankers can be of concern when they are associated with significant cracks or decay, or affect more than 1/3rd of the tree's circumference, particularly if they are located between the lowest live branch and four feet above the groundline. While this was one of the more common forms of tree defect in the campground, the number of trees with this condition was limited. Large dead dwarf mistletoe brooms, which can be hazardous when there is an associated target, were not noted. In a similar fashion, true mistletoe infections in incense cedar (*Phorodendron libocedri*), which were noted in a few trees, are usually not a problem unless the infected branch dies.

Discussion and Conclusions

As was stated above, nine white fir and three incense cedars in the campground were identified that are potentially hazardous and should be immediately mitigated by removal, branch pruning or removal of the associated target. An additional systematic/detailed inspection is recommended to identify any additional hazard trees that were missed during our relatively brief visit.

The forest stand in which Lovers Camp and the Canyon Creek Trailhead is located is overmature and getting older. Without treatment, additional tree defects and associated hazards will accumulate with time. From a vegetation management standpoint, the stand would greatly benefit from a thinning treatment. Such a treatment would remove excess white fir, promoting greater species diversity and giving all remaining trees more resources and room to grow. Thinning would also provide an opportunity to remove the most defective, trees, including ones that are not currently hazardous. The main objective of the treatment would be to enhance species and age diversity and maintain screening between campsites, while reducing current and future hazard tree concerns.

Development of a vegetation management plan for the campground and trailhead would be an excellent first step toward the planning, coordination and implementation of treatments to reduce tree hazard and enhance age and species diversity, tree vigor and stand resiliency. While the plan could just be for Lovers Camp and Canyon Creek Trailhead, it could also include other nearby campgrounds, trailheads and recreational facilities. A recent Region 5 Forest Health Protection publication, "Vegetation Management Outline For Recreation Areas" (USDA Forest Service, 2011) is recommended as a resource to assist in the production of the plan. It provides an outline and template for a vegetation management plan, as well as a list of resources for vegetation management planning. The vegetation management plan for Juanita Lake Campground on the Goosenest Ranger District of the Klamath National Forest (Siemers et.al. 2005) is another excellent resource that may also be used.

While at the campground, we discussed the possibility of applying for WBBI funds to assist with the development of the Vegetation Management Plan. This project would fit

well within the guidelines and objectives of the WBBI program since, in addition to its goals of providing opportunities for the reduction of bark beetle-caused mortality in forested landscapes, it also provides funds for the management of healthy and resilient vegetation in developed recreation areas. Also, because the project area lies within lands that are covered by the Lower Scott River Community Wildfire Protection Plan, is within designated Critical Habitat for the northern spotted owl, and serves as access for the Pacific Crest National Scenic Trail, priority for the project may be high.

In summary, I recommend that WBBI funding be strongly considered for the development of a vegetation management plan for Lovers Camp/Canyon Creek Trailhead and other nearby recreation facilities.

If you have any questions regarding this report or need additional information, please feel free to contact me Pete Angwin at 530-226-2436 or Cynthia Snyder at 530-226-2437.

/s/ Pete Angwin

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CC: Travis Coughlin, Dave Burgess, Carl Varak, Roger Siemers, Dan Blessing, Anne Mileck, Sherry Hazelhurst, Chris Fischer, Cynthia Snyder, Sheri Smith and Phil Cannon

References

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